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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,114	04/14/2004	Robert J. Schubert	74238	6446
22242	7590	10/27/2005		
FITCH EVEN TABIN AND FLANNERY 120 SOUTH LA SALLE STREET SUITE 1600 CHICAGO, IL 60603-3406				
			EXAMINER GARBER, CHARLES D	
			ART UNIT 2856	PAPER NUMBER

DATE MAILED: 10/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EK

<b>Office Action Summary</b>	<b>Application No.</b> 10/824,114	<b>Applicant(s)</b> SCHUBERT ET AL.	
	<b>Examiner</b> Charles D. Garber	<b>Art Unit</b> 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 10-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/9/05</u> | 6) <input type="checkbox"/> Other: _____  |

***Election/Restrictions***

Applicant's election with traverse of group I, claims 1-9 in the reply filed on 10/12/2005 is acknowledged. The traversal is on the ground(s) that the groups all are within class 73 and include some features in common. This is not found persuasive because the groups are not within the same subclasses and it is the features that are not in common which causes an undue burden on the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

***Drawings***

The drawings are objected to because numbers and characters not uniformly thick and well defined. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the

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examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 5-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Happ et al. (US Patent 6,698,667).

Regarding claims 1 and 7, Happ discloses a restraint pretensioner. The recitation that the device is “for simulating forces generated by pyrotechnic devices on a seat belt system, the testing apparatus” has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

Happ further discloses housing 32 houses a pretensioner 6 coupled to an occupant restraint webbing 18 (seat belt system) shown in figure 1.

Happ recites “a small, reciprocating, piston-type pump which draws in **ambient air** and forces it into the **reservoir** until the desired pressure is reached. Subsequent

on/off cycles can be used to maintain the reservoir at the desired pressure negating the need for hermetic sealing, which would be particularly difficult for the release valve.”

Happ also discloses an electronic circuit board 22 which is used to open the valve which allows compressed gas to flow from the reservoir (column 2 lines 57-66).

The aforementioned ambient air is considered equivalent to the actuating fluid supplied to the pretensioner portion and the reservoir is a control portion that stores the actuating fluid at predetermined pressures selected to deliver the fluid to the pretensioner portion as in the instant invention. As for the device “for simulating performance characteristics of pyrotechnic devices on the seat belt system”, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations *Ex parte Masham* 2 USPQ2d 1647 1987).

As for claim 2, all the parts of the device except for a release switch 12 and sensor 2 are within the housing 32. The valve is considered to act fast enough to tension the belt during a crash.

As for claim 5, the reservoir discussed above is considered to be the same as an accumulator as in the instant invention.

As for claim 6, the selected fluid pressure in the reservoir will inherently be a linear function of the force applied to the seat belt system via the pretensioner portion. The pretension force is caused by the reservoir pressure and must have a linear relative relationship.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Happ et al. (US Patent 6,698,667).

Happ as discussed above discloses the claimed invention except for the valve shifting between open and closed positions in approximately seven to eight milliseconds. It would have been obvious to one having ordinary skill in the art at the time the invention was made for the valve to shift between open and closed positions in approximately seven to eight milliseconds, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. In this case the general conditions are disclosed by Happ as being responsive to tension a belt quick enough to protect an occupant in during a high speed crash.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Happ et al. (US Patent 6,698,667) in view of Jernstrom (US Patent 6,585,295).

The Happ reference does not expressly teach the release valve includes a regulator with the regulator applying a pneumatic signal to the valve.

Jernstrom discloses a pneumatic pretensioner teaching a "spill valve can be set between various degrees of opening and is controlled by a control unit in response to signals from a sensor for sensing the weight of the occupant."

It would have been obvious to one having ordinary skill in the art at the time the invention was made to control the valve opening in response to signals from a sensor for sensing the weight of the occupant. "By regulating the valve opening in relation to the weight of the occupant, the force limitation is regulated relative to the weight of the occupant."

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Happ et al. (US Patent 6,698,667) in view of Chamings (US Patent 5,906,327).

The Happ reference as applied to claim 1 above does not expressly teach an energy dissipation module between the seat belt system and the pretension portion.

Chamings discloses a seat belt pretensioner. Chamings teaches "retractor 20 includes a torsion bar 100 which when twisted also permits the controlled protraction of the seat belt from the spool when loaded by the occupant during a crash".

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include torsion bar which when twisted advantageously permits the controlled protraction of the seat belt from the spool when loaded by the occupant

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during a crash. As for preventing impacts against the pretensioner portion during testing operations, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations *Ex parte Masham* 2 USPQ2d 1647 1987).

***Allowable Subject Matter***

Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles D. Garber whose telephone number is (571) 272-2194. The examiner can normally be reached on 6:30 a.m. to 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdg



**CHARLES GARBER**  
**PRIMARY EXAMINER**